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10/9/03

October 3, 2003

Mail Stop Petitions
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Attention: Latrice Bond, Paralegal Specialist

Application no. 09/398,276
Filed, September 20, 1999

10 PAGES
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OCT 02 2003

PETITIONS OFFICE

Pursuant to your paper no. 8 received on 9/15/03, I have attached a copy of the office action I filed on March 15, 2001.

I would presume that this would answer your questions and that in the confusion on this application it did not get received at the Patent Office. If this is not sufficient, please call me or fax me at the address listed above and I will do whatever is required.

Regards,


Benton F. Baugh, Ph.D., P.E.

10/02/2003 22:23 2014317312
March 15, 2001

INVENTOR: Benton F. Baugh, Ph.D., P.E.
FOR: SUBSEA PIPELINE BLOCKAGE REMEDIATION METHOD
SERIAL NO.: 09/398,276
FILED: 09/20/99
EXAMINER: TARA L. MAYO

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PETITIONS OFFICE

Per the items in Paper #2:

1. O.K.

2-5 Claims objections as related in numbers 1 thru 5 have been corrected.

7. Claims 7 thru 9 are distinguished from Jee by the addition of the restriction that the heating means be located subsea.

Claims 13 thru 16 are distinguished from Jee by the requirement that a remotely operated vehicle place the circulation chamber adjacent to the pipeline.

Claims 20-25 are distinguished from Jee in that the energy is converted into heat at a seawater location, whereas Jee is simply using surface platform heat.

Claims 29-32 are distinguished from Jee in that the circulation chamber is placed adjacent to the pipeline whereas Jee's circulation chamber is itself a pipeline which surrounds the smaller pipelines.

Page 5, first paragraph – I agree

Page 5, second paragraph – I agree

Page 5, third paragraph – I would question whether you would say he uses an intermediate fluid, it is the same fluid circulated around the end of the tube.

Page 5, fourth paragraph – he places the pipeline within the chamber rather than the chamber adjacent to the pipeline, he has no means to heat a portion of the pipeline, but rather must heat the whole pipeline.

Page 6, paragraph 1 – I agree

Page 6 paragraph 2 – It may be obvious to use electric heat on the surface of a platform, but to do it in a remote deepwater location is probably not obvious.

Page 6, paragraph 3 – Using a pressure reducing means on an ROV to heat a subsea pipeline is probably not obvious.

Page 6, paragraph 4 – I have been around this problem for many years and the idea of using divers or ROVs to place a chamber to locally generate heat to remove deepwater hydrates has been demonstrated as non-obvious by substantial industry studies which have not thought of the idea. The thought that it simply replaces divers is not correct, there has never been a suggestion to use divers for this task to the best of my knowledge.

Page 6, paragraph 5 – Jee's method requires that the pipeline have the outer pipeline installed when the pipeline is laid. His method is completely ineffective if there is a subsea blockage and his outer pipeline was not installed before. The idea that we can move down into the seafloor silt and place a chamber next to an existing pipeline is substantially different than the capability of Jee's concept.

8. I agree that the use of chemical heating alone is not unique, but would appear valid as a dependent claim to a valid independent claim.

9. The changes have been made.

10. Claims 11 and 12 are dependent upon a claim with the additional restriction of the heat being generated subsea.

10/02/2000 22:23 2014310011
Claims 18 and 19 are dependent on a claim requiring installation of the circulation chamber by a remotely operated vehicle.

Claims 27 and 28 are dependent on a claim which requires that the heat is generated at a subsea location adjacent to the pipeline.

Claims 33 thru 38 are dependent on a claim which requires that the circulating chamber be placed adjacent to a buried pipeline. To emphasize the difference with Jee's concept, I have added the further restriction that the circulation chamber be moved along said pipeline.

I have included new copies of drawings 4, 5, 7, 8, and 13.

Regards,



Benton F. Baugh, Ph.D., P.E.